LISTING OF THE CLAIMS

The listing of claims provided below will replace all prior versions, and listings, of claims in the application.

Listing of claims

1. (Currently amended) A method for promoting *in vitro* differentiation of a neural stem cell or a neural progenitor cell into a differentiated neural cell, comprising inhibiting ATF5 in the cell with a ~~specific inhibitor of~~ dominant negative ATF5 in an amount effective to decrease the activity of ATF5 in the cell and promote neural differentiation of the cell.

2. (Previously presented) The method of claim 1, further comprising the step of contacting the neural stem cell or neural progenitor cell with at least one neurotrophic factor.

3. (Previously presented) The method of claim 1, wherein the differentiated neural cell is selected from the group consisting of an astrocyte, an astroglial cell, a neuron, an oligodendrocyte, an oligodendroglial cell, and a Schwann cell.

4. (Canceled) The method of claim 1, wherein the differentiated neural cell expresses enhanced green fluorescent protein (eGFP).

5. (Canceled) ~~The method of claim 1, wherein the ATF5 inhibitor is selected from the group consisting of an ATF5 antibody, siRNA, dominant negative ATF5, and antisense RNA.~~

6. (Canceled) ~~The method of claim 1, wherein ATF5 is inhibited in the neural stem cell or neural progenitor cell in vivo in a subject.~~

7. (Canceled) ~~The method of claim 1, wherein ATF5 is inhibited in the neural stem cell or neural progenitor cell in vitro.~~

8. (Currently Amended) The method of claim 1~~claim 7~~, further comprising the step of transplanting the differentiated neural cell into a subject.

9. (Previously presented) The method of claim 8, wherein the subject is an embryo.

10. (Previously presented) The method of claim 8, wherein the subject is a human.

11. (Previously presented) The method of claim 8, wherein the subject has nervous tissue degeneration.

12. (Canceled)

13. (Canceled)

14. (Currently Amended) A method for inducing neural cell differentiation *in vitro*, comprising contacting a cell selected from the group consisting of a neural stem cell and a neural progenitor cell with an amount of a ~~specific~~ dominant negative ATF5 inhibitor effective to

induce differentiation.

15. (Canceled) ~~The method of claim 14, which is performed in vivo in a subject.~~

16. (Canceled) ~~The method of claim 14, which is performed in vitro.~~

17. (Currently Amended) The method of claim 14 ~~claim 16~~, further comprising the step of transplanting the differentiated neural cells into a subject.

18. (Canceled)

19. (Canceled) ~~A method for treating nervous tissue degeneration in a subject in need of treatment, comprising the steps of:~~

~~(a) providing a culture comprising cells selected from the group consisting of neural stem cells and neural progenitor cells;~~

~~(b) contacting the culture with an effective amount of an ATF5 inhibitor selected from the group consisting of an ATF5 antibody, siRNA, dominant negative ATF5, and antisense RNA; and~~

~~(c) transplanting the differentiated neural cells into the subject in an amount effective to treat the nervous tissue degeneration.~~

20. (Canceled)

21-31. (Canceled)

32. (Currently Amended) A method for isolating a population of differentiated neural cells, comprising:

(a) providing a culture comprising cells selected from the group consisting of neural stem cells and neural progenitor cells;

(b) transfecting the culture with a nucleic acid, wherein said nucleic acid comprises a sequence encoding ~~an inhibitor of~~ a dominant negative ATF5 and a sequence encoding [[a]] enhanced green fluorescent protein, and wherein the inhibitor is specific for ATF5, and is in an amount effective to produce differentiated neural cells;

(c) detecting expression of the enhanced green fluorescent protein in the differentiated neural cells; and

(d) isolating the differentiated neural cells that express the enhanced green fluorescent protein.